

## REMARKS

Reconsideration is respectfully requested in light of the foregoing amendments and remarks which follow is respectfully requested.

Claims 1-8 are before the Examiner. Claim 1 has been amended to address the points raised in the “**Claim Interpretation**” section. The Examiner is thanked for the guidance provided therein. Claim 2 has been amended to correct an obvious omission and to also address points raised by the Examiner. Support for the amendatory language is to be found in the first three paragraphs on page 6 of the specification.

Claim 1 is rejected under 35 U.S.C. 102(b) as being anticipated by Bergstrom et al. (US 6,384,125) and further evidenced by Griffith et al. (US 5,908,660) and Burns et al. (US 6,051,672). Applicants respectfully traverse.

For a reference to be anticipatory it must teach each and every element required by the claim.

The claim has been revised to clarify the required characteristics of the product. The claim is clearly directed to a silanized pyrogenically produced silica product where specified hydrophobic groups and vinyl or vinyl silyl groups are fixed to the surface of the pyrogenically produced silica particles. The Bergtrom et al product does not contain pyrogenically produced silica, but rather contains precipitated silica. These forms of silica are recognized as being distinct. Further, the claimed product is structurally modified. This modification is reflected in the claimed DBP value % of <200 or not determinable. Bergtrom et al. is silent as to a DBP value and performs no step and employs no material which would inherently impart the characteristic to their product.

Further in Table 3 (col.13) and in Table 5 (col. 15), Bergstrom employ as a control a product that contains fumed silica (pyrogenic silica). The differences suggest that the forms of silica are critical to the outcome desired by Bergstrom.

The additional references-Griffith et al and Burns et al- cited by the Examiner have been considered. The purpose for which the Examiner cites the references is noted.

Neither reference establishes that the Bergstrom et al. product inherently possess the characteristics of Applicants' product as now claimed.

Withdrawal of the rejection is respectfully requested.

Claims 1-8 are rejected under 35 U.S.C. 102(b) as being anticipated by Barthel et al. (US 2003/0138715) and further evidenced by Scharfe et al. (US 2003/0118499) and Mangold et al. (US 5,976,480). Applicants respectfully traverse.

#### Claims 1 and 7

The subject matter of claim 1 is described above. Claim 7 describes silicone rubber product which contains the silanized, structurally modified silica product of claim 1 as a filler. Neither product is expressly taught by Barthel et al.<sup>1</sup>

The issue framed by the Examiner is whether the pyrogenic silica present in the Barthel et al product inherently possesses the claimed DBP absorption values.

Mangold et al. has been considered. In Table 1, it shows that one pyrogenically produced silica has a DBP value outside the claimed range (Example 1) and the other has a DBP range within the claimed range (Example 2). This showing does not establish that the pyrogenic silica employed by Barthel et al. has a DBP value within the claimed range. Barthel et al does not identify Mangold et al. as a source material. Mangold et al. does not identify the Barthel et al. patent as a suitable use for their product. A toner use is not mentioned in col. 2 of Mangold et al. Scharfe et al. deals with aluminum oxide doped pyrogenic oxides. The claimed product is not a doped pyrogenic oxide. The relevancy of Scharfe et al.<sup>2</sup> as a showing which establishes the

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<sup>1</sup> The use of the taught product as a filler in silicone rubber is mentioned in both paragraphs [0088] and [0177]. An actual product is not disclosed or characterized.

<sup>2</sup> None of the possible uses mentioned in paragraph [006] and paragraph [0014] is the same as that disclosed for the claimed product.

inherent presence of the claimed DBP values in the Barthel et al. product is not readily apparent- the materials are different.

Further, Barthel et al. also do not mention a destructuring step which imparts the “low structure” characteristic to the pyrogenic metal oxide.<sup>3</sup> It is Applicant position that the Barthel et al. product would not reasonably be expected to inherently possess the DBP characteristic since there is no destructuring step or conditions mentioned in the patent. Please note M.P.E.P. 2112 and the case law cited therein relative to the establishment of the inherent presence of a characteristic. No step is performed in the working examples would be expected to inherently produce the characteristic based on the teachings in the file. There is no mention in the working examples of a step which employs the use of a ball mill, continuous or batch.<sup>4</sup> (Nargiello et al. teach the ball mill has to be employed under specified conditions to impart “low structure” to pyrogenic silica.) Further, the working examples are directed to the preparation of a final product suitable for use as a toner. This use is distinct from that of the claimed filler product.

Withdrawal of the rejection as to claim 1 is respectfully requested. The Barthel et al. product would not be reasonably expected to inherently possess the claimed DBP values.

Withdrawal of the rejection as to claim 7 is also respectfully requested. A silicone rubber having the claimed carrier is also not taught.

#### Claims 2-6 and 8

Claim 2 has been amended. As amended, claim 2 clearly describes a process where

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<sup>3</sup> Nargiello et al. (US 6,193,795 B1) is directed to a low structure pyrogenic metal oxide filler. The method taught by Nargiello et al. involves subjecting pyrogenically metal oxide agglomerates and aggregates to a dry milling process. See paragraph bridging col. 1 and 2. Also note that also that in the paragraph starting at line 20 of col. 2, it is indicated that the dry milling process is an intensive milling process that goes beyond standard particle size reduction to achieve destructuring of the pyrogenic metallic oxides. This is further detailed in the paragraph following the one identified. Destructuring is a function of many variables. See paragraph starting at line 40 in col. 5. The effect of the destructuring on characteristics other than DBP adsorption is discussed in the final paragraph of col. 5. Also milling can effect other parameters, e.g. bulk, density without destructuring. See Tables 1 and 2.

<sup>4</sup> It is noted the use of a ball mill for compaction purposes is mentioned in paragraph [0064] and paragraph [0065].

pyrogenic silica is silanized to form a surface with fixed vinyl groups or vinyl silyl groups and hydrophobic groups selected from trimethyl silyl, dimethyl silyl, monomethyl silyl or mixtures thereof and where the silanized silica is subjected to mechanical action to form a “low structured” product. This product is recovered. To perform the process as claimed one has to select specific surface modifying agents, treat the resultant silanized product to mechanical action sufficient to produce a “low structure” product and then to intentionally recover the product.

For a reference to be anticipatory, it must teach each and every element of the claim. Barthel et al. do not teach a destructuring step which results in a “low structured” product. (Nargiello et al. teaches that the mere presence ball milling will not suffice. Specified condition are required. See for example col. 5.) Also, Barthel et al. does not indicate the need for specific groups fixed to the surface of the silica. Note Tables 4 and 5 on page 15 of the specification. The evidentiary patents are discussed above and do not suggest the inherent presence of the missing step(s) or fixed surface groups. Inherency must be demonstrated as a reasonable certainty and must not be based on mere speculation.

Withdrawal of the rejection is respectfully requested.

#### **Request for Interview**

Applicants respectfully request either a telephonic or an in-person interview should there be any remaining issues.

#### **CONCLUSION**

All of the stated grounds of rejection have been properly traversed, accommodated, or rendered moot. Therefore, it is respectfully requested that the Examiner reconsider all presently outstanding rejections and that they be withdrawn. It is believed that a full and complete response has been made to the outstanding Office Action and, as such, the present application is

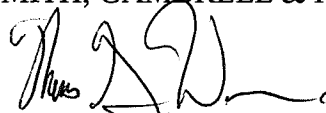
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This is distinct from “destructuring”. Note footnote 1.

in condition for allowance. If the Examiner believes, for any reason, that personal communication will expedite prosecution of this application, the Examiner is invited to telephone the undersigned at the number provided.

It is not believed that extensions of time are required, beyond those that may otherwise be provided for in accompanying documents. However, in the event that additional extensions of time are necessary to prevent abandonment of this application, then such extensions of time are hereby petitioned under 37 C.F.R. 1.136(a), and any fees required therefor are hereby authorized to be charged to **Deposit Account No. 02-4300, Attorney Docket No. 032301.236168 (39509.236168).**

Respectfully submitted,  
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